

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Application of )  
 )  
 MAUI ELECTRIC COMPANY, LIMITED )  
 )  
 For Approval of Power Purchase )  
 Contract with Auwahi Wind Energy LLC, )  
 and Determination that Maui )  
 Electric-Owned Interconnection )  
 Facilities be Constructed Above the )  
 Surface of the Ground Pursuant to )  
 HRS 269-27.6(a). )  
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DOCKET NO. 2011-0060

DECISION AND ORDER

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PUBLIC UTILITIES  
COMMISSION

FILED

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| HRS 269-27.6(a). )                      |                      |
| _____ )                                 |                      |

DECISION AND ORDER

By this Decision and Order, the commission approves, subject to the terms and conditions described herein, the requests set forth in the application filed by MAUI ELECTRIC COMPANY, LIMITED ("MECO"), on March 17, 2011.<sup>1</sup> Specifically, the commission:

(1) approves the Power Purchase Agreement For As-Available Renewable Energy dated January 25, 2011, by and between MECO and Auwahi Wind Energy LLC ("AWE" or "Seller"),<sup>2</sup> dated January 25, 2011 ("PPA");

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<sup>1</sup>MECO's Application; Exhibits 1 - 12; Verification; and Certificate of Service ("Application"). The Parties to this docket are MECO and the DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, DIVISION OF CONSUMER ADVOCACY ("Consumer Advocate"), an ex officio party to this proceeding, pursuant to Hawaii Revised Statutes ("HRS") § 269-51 and Hawaii Administrative Rules ("HAR") § 6-61-62(a). No persons moved to intervene or participate in this proceeding.

<sup>2</sup>MECO and AWE are collectively referred to as the "Contracting Parties."

(2) authorizes MECO to include the purchased energy charges and related revenue taxes that it incurs under the PPA in the Utility's Energy Cost Adjustment Clause ("ECAC"), to the extent that such costs are not included in MECO's base rates, for the term of the PPA, subject to the terms and conditions provided herein;

(3) finds that the purchased energy charges to be paid by MECO pursuant to the PPA are reasonable;

(4) finds that the terms and conditions of the PPA between MECO and AWE, pursuant to which MECO purchases energy on an as-available basis from AWE, are prudent and in the public interest;

(5) approves the arrangements specified in the PPA for the payment of Interconnection costs. However, MECO is not currently authorized to recover any MECO-caused cost overrun related to the MECO-owned Interconnection Facilities at this time; instead, any recovery requests are subject to review in MECO's next rate proceeding or equivalent cost-recovery mechanism (e.g., decoupling) following the completion of the MECO-owned Interconnection Facilities.

(6) determines that the two 69 kilovolt ("kV") line drops (i.e., MECO-owned Interconnection Facilities) be constructed above the surface of the ground pursuant to HRS § 269-27.6(a).

I.

Background

MECO is a Hawaii corporation duly organized under the laws of the Territory of Hawaii on or about April 28, 1921, and now exists under and by virtue of the laws of the State of Hawaii. MECO operates as a public utility engaged in the production, purchase, transmission, distribution, and sale of electricity on the island of Maui, the production, transmission, distribution, and sale of electricity on the island of Molokai, and the production, purchase, distribution, and sale of electricity on the island of Lanai.<sup>3</sup>

AWE is a Delaware limited liability company, registered to do business in the State of Hawaii. AWE is a project-specific company, formed for the primary purpose of developing the AWE Wind Farm. AWE was originally organized by Shell WindEnergy Inc., the original proponent of the Auwahi wind project. Sempra Generation acquired 100% of the ownership of AWE and the lease for the wind-farm site from Shell WindEnergy Inc., in October 2009.<sup>4</sup> AWE is currently 100% owned by Sempra Generation ("Sempra Generation").<sup>5</sup> Sempra Generation is wholly-owned by Sempra Global (a holding company for most of Sempra Energy's subsidiaries that are not subject to California utility regulation), which is, in turn, wholly-owned by Sempra Energy.

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<sup>3</sup>See Application, at 8.

<sup>4</sup>According to MECO, AWE's predecessors "entered into a lease agreement with Ulupalakua Ranch on June 29, 2006." Id. at 12.

<sup>5</sup>Id. at 9.

Sempra Energy, based in San Diego, California, has five separately-managed segments consisting of San Diego Gas & Electric Company, Southern California Gas Company, Sempra Generation and Sempra Pipelines & Storage, Sempra LNG (liquefied natural gas). Sempra Generation, Sempra Pipelines & Storage and Sempra LNG are subsidiaries of Sempra Global.<sup>6</sup>

The proposed project consists of an approximately 21 megawatt ("MW") wind farm facility, located almost entirely on 120 acres of land on Ulupalakua Ranch, in the Hana, Kula and Kihei Districts, on the island of Maui ("AWE Wind Farm" or the "Facility"), identified by Tax Map Key No. (2) 1-9-001:006.<sup>7</sup>

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<sup>6</sup>Id. See also PPA, Attachment A. According to AWE,

[T]he construction and operation of AWE is expected to be financed either on Sempra's balance sheet or with a combination of Sempra equity and construction/term loans. The financing could also include an equity investment by one or more third parties . . . . AWE . . . intends to rely . . . upon utilization of either the Federal Investment Tax Credit ("ITC") under 26 U.S.C. § 48, or the Federal Production Tax Credit ("PTC") under 26 U.S.C. § 45 (collectively referred to as "Federal Tax Credits"), which, as amended by the American Recovery and Reinvestment Act of 2009, allows qualifying wind projects placed in service before the end of 2012 to claim thirty percent (30%) of the project's qualifying costs as a tax credit. Since acquiring AWE in 2009, Sempra has expected that AWE would achieve Commercial Operation before this 2012 deadline and, therefore, qualify for the Federal Tax Credits.

Id. at 10. See also PPA, Attachment A.

<sup>7</sup>Id. at 12. The approximate location of the proposed Facility is indicated on the maps and photos attached to the Application as Exhibits 3-6.

MECO asserts that it has allowed AWE "certain latitude to select from three models of Wind Turbine Generator ("WTG") and from two models of Battery Energy Storage System ("BESS") that will be included in the AWE Wind Farm based on the results of the Interconnection Requirements Study ["IRS"]."<sup>8</sup> MECO states that "AWE must provide MECO with written notice of the WTG and BESS models selected by AWE for the Wind Farm, together with a certification that the selected equipment meets the performance and other standards set forth in the PPA," no later than February 1, 2012.<sup>9</sup>

As such, MECO asserts that the Wind Farm will be comprised of wind turbines from one of the following options:

(A) 15 General Electric 1.5xleWE wind turbine generators, 1,500 kW each, and a 22,500 kW total nameplate capacity, with each generator having an 80-meter hub height and 77-meter rotor diameter;

(B) 10 Siemens SWT-2.3-101 wind turbine generators, 2,300 kW each, and a 23,000 kW total nameplate capacity, with each generator having an 80-meter hub height and 101-meter rotor diameter;

(C) 8 Siemens SWT-3.0-101 wind turbine generators, 3,000 kW each and 24,000 kW total nameplate capacity, with each generator having an 80-meter hub height and 101-meter rotor diameter.<sup>10</sup>

Similarly, the AWE Wind Farm will include a BESS from one of the following options:

(A) 9 Xtreme Power 1.5 [megavolt ampere ("MVA")] (continuous) electrochemical energy storage units for a total of 13.5 MVA and 12 [megawatt hours

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<sup>8</sup>Id. at 13.

<sup>9</sup>Id.

<sup>10</sup>Id. See also PPA, Attachment A, § 5(B).

("MWh" ) of energy, with each unit having 1.33 MWh of energy storage; or

(B) Cylindrical or prismatic A123 batteries in racks within ISO containers (53' in length) or a single battery building for a total of 18.4 MVA.<sup>11</sup>

According to MECO, AWE intends to self certify its facility as a small power production Qualifying Facility with the Federal Energy Regulatory Commission ("FERC") as set forth in 18 CFR § 292.203(a), and the Commission's Standards for Small Power Production and Cogeneration in the State of Hawaii, by completing FERC Form No. 556.<sup>12</sup>

The Application included an Interconnection Requirements Study ("IRS") performed at AWE's expense. The IRS concluded that:

- (a) the addition of AWE's Wind Farm will not cause steady state overloads or voltage violations on the MECO 69 kV and 23 kV systems for single contingency events;
- (b) short circuit duties do not exceed equipment limits of circuit breakers at Maalaea, Kealahou and Wailea;
- (c) AWE's Wind Farm does not appear to negatively affect the angular stability of nearby synchronous machines; and
- (d) tripping AWE's Wind Farm offline will not cause significant impact to nearby generators and will not result in under frequency load shedding of MECO customers for the events modeled. The IRS also recommended that AWE comply with MECO voltage and frequency ride-through requirements, deliver power to MECO at unity power factor (zero net reactive power exchange) at the AWE Facility 69 kV

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<sup>11</sup>Id. at 13-14. See also PPA, Attachment A, § 5(C). MECO contends that AWE's Wind Farm will also include a substation, an operations and maintenance facility and related infrastructure, a 34.5 kV generator-tie line, an interconnection substation, and a construction access route along existing public roadways and pastoral roads. Id. at 14.

<sup>12</sup>Id. at 12.

Point of Interconnection, and BESS controls should follow fast ramping in response to frequency events.<sup>13</sup>

According to MECO, the IRS also recommended that "certain interconnection facilities and procedures be added or modified to accommodate AWE's Wind Farm, specifically including modifications to the Kealahou protection system, Wailea protection system, and Auwahi protection system, and to communication and control."<sup>14</sup>

According to MECO, AWE expects several permits to be issued near the end of 2011. For example, the Final EIS is expected to be approved by November 2011, and the Special Use Permit; Special Management Area Permit; and Final Habitat Conservation Plan ("HCP") are expected to be issued by December 2011. Also, the Incidental Take Permit is expected to be issued by January 2012.<sup>15</sup> According to MECO,

AWE has the right to terminate the PPA and pay any applicable liquidated termination damages if AWE has not received by March 1, 2012, each of the (1) Maui County Special Use Permit, (2) the Maui County Special Management Area Permit, (3) the U.S. Fish and Wildlife Incidental Take Permit, and (4) the Hawaii Incidental Take License. AWE has represented that such termination right is necessary because of the potential material adverse effect on AWE's business that could result from AWE losing its curtailment priority due to a delay in obtaining the development permits.<sup>16</sup>

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<sup>13</sup>Id. at 24. See also Application, Exhibit 10.

<sup>14</sup>Id.

<sup>15</sup>Id. at 15.

<sup>16</sup>Id. at 16.

A.

Application

1.

Pricing

As set forth in the PPA, the contract price for energy delivered to, and accepted by, MECO is based on a 2-tier pricing structure, with an annual escalation factor as follows:

| Year | Price, 1st 83 GWh of energy delivered during Calendar Year (\$/MWh) | Price, remaining GWh of energy delivered during Calendar Year (\$/MWh) |
|------|---|--|
| 2012 | 200.00  | 50.75  |
| 2013 | 203.00  | 51.51  |
| 2014 | 206.05  | 52.28  |
| 2015 | 209.14  | 53.07  |
| 2016 | 212.27  | 53.86  |
| 2017 | 215.46  | 54.67  |
| 2018 | 218.69  | 55.49  |
| 2019 | 221.97  | 56.32  |
| 2020 | 225.30  | 57.17  |
| 2021 | 228.68  | 58.03  |
| 2022 | 232.11  | 58.90  |
| 2023 | 235.59  | 59.78  |
| 2024 | 239.12  | 60.68  |
| 2025 | 242.71  | 61.59  |
| 2026 | 246.35  | 62.51  |

| Year | Price, 1st 83 GWh of energy delivered during Calendar Year (\$/MWh) | Price, remaining GWh of energy delivered during Calendar Year (\$/MWh) |
|------|---|--|
| 2027 | 250.05  | 63.45  |
| 2028 | 253.80  | 64.40  |
| 2029 | 257.60  | 65.37  |
| 2030 | 261.47  | 66.35  |
| 2031 | 265.39  | 67.34  |
| 2032 | 269.37  | 68.35 <sup>17</sup>  |

The information supporting the long-term avoided energy cost analysis was submitted under confidential seal in MECO's Application. Among the factors supporting MECO's determination that AWE's pricing is reasonable are:

- (1) MECO's desire for additional renewable energy resources;
- (2) the objective of delinking the pricing of AWE's energy from fossil fuel prices; and
- (3) the pricing of the proposal compared to MECO's estimated long-run avoided energy costs (taking into consideration uncertainties with respect to future oil prices) . . . MECO also considered other project cost information provided by AWE, which supports its conclusion that the pricing is not unreasonable.<sup>18</sup>

MECO provides the following general features of the pricing structure and pricing level:

- Pricing is completely delinked from the price of fossil fuels at the time of purchase, thereby satisfying HRS Section 269-27.2(c).
- Same pricing for on-peak (7:00 am to 9:00 pm) and off-peak (9:00 pm to 7:00 am) periods.

<sup>17</sup>See Application, Exhibit 1, at 181.

<sup>18</sup>Id. at 4-5.

- In the first year of operation (2013), the pricing starts at 20.300 ¢/kWh for the first 83 [gigawatt hours ("GWh")] annually and 5.151 ¢/kWh for the energy in excess of 83 GWh annually.
- The pricing escalates at 1.5% per calendar year beginning with year 2012 price and ending with year 2032 price. Escalation shall be effective at the beginning of each calendar year.<sup>19</sup>

2.

MECO-Owned Interconnection Facilities<sup>20</sup>

According to the Application, MECO will construct, operate, maintain, and own its Interconnection Facilities, as described in Attachment G, to the PPA, Company-Owned Interconnection Facilities.<sup>21</sup> AWE agrees to pay the Total Actual Interconnection Cost, which is comprised of the estimated costs of,

- (1) preliminary engineering (\$209,104);
- (2) engineering design review (\$122,226);
- (3) two 69 kV line drops to loop in MECO's Wailea-Kealahou 69 kV transmission line through the MECO-owned 69 kV switching station (\$174,389);
- (4) inspection costs for the MECO-owned 69 kV switching station (\$79,054);
- (5) design, development, inspection and testing costs for the MECO-owned 69 kV switching station microwave link to the Maalaea switching station mid fiber optic communications between the MECO-owned 69 kV switching station and the Wailea substation, and installation of fiber optic communication between MECO-owned 69 kV switching station and Wailea switching station (\$218,472);
- (6) SCADA costs (\$135,947);

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<sup>19</sup>See Application, Exhibit 8, at 5-6. MECO also asserts that the proposed project is exempt from the Commission's Framework for Competitive Bidding ("Competitive Bidding Framework"), set forth in Decision and Order No. 23121, issued December 8, 2006 in Docket No. 03-0372.

<sup>20</sup>See Application, at 23-26.

<sup>21</sup>Id.

- (7) acceptance testing for the MECO-owned 69 kv switching station (\$116,959);
- (8) the Wailea substation relay upgrade (\$189,659);
- (9) the Kealahou substation relay upgrade (\$188,193); and
- (10) revenue metering (\$76,786).<sup>22</sup>

The total estimated cost for the MECO-owned Interconnection Facilities, as set forth in Attachment G § 1 (c) of the PPA is approximately, \$1,510,789. For the MECO-owned Interconnection Facilities to be designed, engineered and constructed by MECO, MECO states that,

AWE is obligated to pay the Total Actual Interconnection Cost up to a maximum of two times (2X) the Total Estimated Cost, or \$3,021,578, which includes the cost of (i) acquiring and installing such MECO-owned Interconnection Facilities, (ii) the engineering and design work (including but not limited to MECO, MECO-affiliates and contracted engineering and design work) associated with (a) developing such MECO-owned Interconnection Facilities and (b) reviewing and specifying the MECO-Owned Interconnection Facilities to be installed, tested and placed in service by AWE and/or its contractors pursuant to Attachment G and those portions of AWE's Wind Farm which allow interconnected operations, as are described in PPA Attachment B, and (iii) conducting the Acceptance Test and Control System Acceptance Test. AWE shall also pay for any costs in excess of \$3,021,578 that result from changes to the design, engineering or construction of the MECO-owned Interconnection Facilities that are made at the request of AWE or by directive of a Governmental Authority.<sup>23</sup>

AWE must also obtain an "Irrevocable Standby Letter of Credit in order to help ensure that MECO is reimbursed by AWE for MECO-owned Interconnection Facilities to be provided and/or

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<sup>22</sup>Id. at 24-25.

<sup>23</sup>Id. at 25-26.

constructed by MECO."<sup>24</sup> Upon termination of the PPA, AWE must, at its expense, if requested by MECO, restore the area where MECO-owned Interconnection Facilities had been located "to its condition prior to construction of such MECO-owned Interconnection Facilities."<sup>25</sup>

3.

Delivery and Curtailment of Energy<sup>26</sup>

In accordance with the terms of the PPA, AWE agrees to provide "as available energy" to MECO on an unscheduled basis, subject to MECO's right to curtail the output of the Facility under various circumstances.<sup>27</sup> According to the Application,

[C]urtailments must be made to the extent possible in reverse chronological order based on the chronological seniority dates determined by MECO for the power purchase agreements, with deliveries under the power purchase agreements with the most recent chronological seniority date being the first curtailed, and deliveries under the power purchase agreement with the earliest chronological seniority date being the last curtailed.<sup>28</sup>

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<sup>24</sup>Id. at 29. Requirements for the Irrevocable Standby Letter of Credit are set forth in PPA, Attachment G, Section 5.

<sup>25</sup>Id. at 30. See also PPA, Attachment G, § 6(c). Site restoration must be completed within 90 days of termination of the PPA or as otherwise agreed to by both parties in writing.

<sup>26</sup>See Application, at 30-38.

<sup>27</sup>Id. at 30.

<sup>28</sup>Id. at 34. See also PPA, Attachment B § 2(F)(ii). Accordingly,

Except as described otherwise in this paragraph, the chronological seniority date will be the Non-appealable PUC Approval Order Date. If AWE does not achieve a Commercial Operations Date on or before 12 months following the earlier of the Waiver Agreement Date or the satisfactory

As set forth in the PPA, AWE agrees to provide a curtailment control interface "with the ability to interface with MECO's Remote Terminal Unit ("RTU") to incrementally curtail and restore the output from AWE's Wind Farm when required, as determined under the PPA."<sup>29</sup>

5.

Term<sup>30</sup>

The initial term of the PPA is twenty years, commencing upon the Commercial Operations Date, and will remain in effect thereafter until terminated by either contracting party.<sup>31</sup>

6.

PPA Milestones<sup>32</sup>

According to the Application, AWE must begin construction of AWE's Wind Farm (defined as delivery of final

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Non-appealable PUC Approval Order Date, the chronological seniority date for curtailment will change by adding one day for each day that the Commercial Operations Date is later than the date that is 12 months after the earlier of the Waiver Agreement Date or the Non-Appealable PUC Approval Order Date.

Id.

<sup>29</sup>Id. at 31. The curtailment provisions are not intended to "permit MECO to require AWE to curtail, interrupt or reduce deliveries of energy based on MECO's economic dispatch . . . ." Id. at 33.

<sup>30</sup>See Application, at 18-20.

<sup>31</sup>Id.

<sup>32</sup>See Application, at 3-4.

notices to proceed or final orders to the construction contractors and major equipment suppliers) by March 31, 2012 ("Construction Start Date"). AWE is required to operate its wind farm and provide energy to MECO by December 31, 2012 (the "Guaranteed Commercial Operations Date" or "GCOD").<sup>33</sup> If commercial operations of AWE's Farm have not commenced by the GCOD, AWE

[W]ill have a limited grace period to achieve Commercial Operations. If, after the grace period expires, and after an additional 180-day period of paying liquidated damages, AWE has not achieved Commercial Operations, MECO has the right to terminate the PPA and collect liquidated termination damages on account of such termination, notwithstanding any other provision of the PPA to the contrary.<sup>34</sup>

7.

#### Other Provisions

Provisions governing scheduling,<sup>35</sup> forecasting,<sup>36</sup> operating procedures,<sup>37</sup> financial compliance,<sup>38</sup> and other various terms and conditions are also included in the PPA.<sup>39</sup>

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<sup>33</sup>Id. at 3.

<sup>34</sup>Id. at 3-4.

<sup>35</sup>See Application, at 38-39.

<sup>36</sup>Id. at 46-47.

<sup>37</sup>Id. at 40-52.

<sup>38</sup>Id. at 52-57.

<sup>39</sup>Id. at 58-64. Among the various terms set forth in this section are provisions regarding default and termination, damages for default, insurance, indemnity, set off, dispute resolution,

Overhead Transmission Lines<sup>40</sup>

In the Application, MECO also requests commission approval for the installation of 69 kV transmission lines above the surface of the ground. According to MECO, the scope of the request includes:

- (1) Removal of approximately 600 feet of the existing Kealahou-Wailea 69 kV overhead circuit;
- (2) Removal of two existing 65-foot poles;
- (3) Installation of approximately 600 circuit feet of 69 kV overhead lines; and
- (4) Installation of five new 65-foot poles.<sup>41</sup>

According to MECO, the installation of the proposed lines would not create a significant visual impact, because of the "existing overhead 69kV transmission lines in the area."<sup>42</sup> In addition, MECO estimates that it would cost approximately \$523,200 to construct the 69 kV line drops underground instead of above ground, as opposed to the overhead work, which would cost approximately \$174,389.<sup>43</sup>

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assignment, sale of energy to third parties, environmental credits, proprietary rights.

<sup>40</sup>Id. at 64-67.

<sup>41</sup>Id. at 65. "More specifically, approximately 600 circuit feet of the Kealahou-Wailea 69 kV circuit and two 65-foot poles will be removed and five new 65-foot poles will be installed, allowing the 69 kV conductor to loop through the proposed MECO-owned 69 kV switching station." Id. See also Application, Exhibit 12.

<sup>42</sup>Id. at 66.

<sup>43</sup>Id. MECO also asserts that a public hearing regarding the proposed construction of the overhead lines under HRS § 269-27.5 is not required because there are no existing homes near the project site. MECO states that "the nearest homes are located in the Maui Meadows Subdivision, which is approximately .8 miles away to the northwest. The 69kV line extensions will not be

B.

Consumer Advocate's Statement of Position

On June 8, 2011, the Consumer Advocate filed its Statement of Position,<sup>44</sup> stating that it does not object to MECO's requested relief. As part of its position, the Consumer Advocate recognizes the following factors as key to its position regarding the project's proposed electricity pricing:

- (1) The pricing structure reflects negotiations between MECO and an IPP;
- (2) Recent fuel prices may not accurately reflect future prices;
- (3) The anticipated benefit of the proposed PPA in meeting the State's energy objectives for renewable energy resources and independence from imported fossil fuel.<sup>45</sup>

The Consumer Advocate also notes that the terms and conditions of the proposed PPA are similar to the terms and conditions of either:

- (1) the "Model Power Purchase Agreement for Renewable Energy Projects, June 2008" ("Model RE PPA"), which was attached to the "Final Request for Proposals for Renewable Energy Projects, Island of Oahu, June 2008" ("Final RE RFP"), as submitted May 19, 2008 in Docket No. 2007-0331, which was corrected June 12, 2008 and revised June 17, 2008, and resubmitted on June 19, 2008 after Commission approval to issue the RE RFP on June 18, 2008; or (2) the [Kaheawa Wind Power II, LLC ("KWPII")] PPA.<sup>46</sup>

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visible from the homes due to the distance and terrain." Id. at 66-67.

<sup>44</sup>See Consumer Advocate's Statement of Position; and Certificate of Service, filed June 8, 2011 ("CA's SOP").

<sup>45</sup>Id. at 12.

<sup>46</sup>Id. at 15-16. The KWPII PPA was approved by the commission in its Decision and Order, filed on February 11, 2011 in Docket No. 2010-0279.

With respect to terms and conditions that do differ from the examples listed above, the Consumer Advocate notes that they "do not appear to be discriminatory to AWE or other IPPs."<sup>47</sup>

Next, the Consumer Advocate states that it does not object to MECO's request to include the purchased energy charges, and related revenue taxes, in MECO's ECAC, to the extent that they are not included in base rates. In addition, the Consumer Advocate states that given MECO's self-imposed conditions regarding the recovery of costs related to MECO-owned and installed Interconnection Facilities in excess of the estimated cost of \$3,021,578, it does not object to MECO's request.<sup>48</sup> Finally, the Consumer Advocate does not object to MECO's request to install 69 kV transmission lines above the surface of the ground, and states that it appears that MECO satisfies all of the requirements set forth in HRS § 269-27.6(a).<sup>49</sup>

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<sup>47</sup>Id. at 16.

<sup>48</sup>Id. at 18. In this regard, the Consumer Advocate notes that, MECO's request is contingent upon:

- (1) if and to the extent MECO is responsible for such excess costs (because, for example, MECO underestimated the cost of the MECO-owned and installed Interconnection Facilities); and
- (2) the commission does not find, when reviewing such excess costs in MECO's next general rate case, that such excess costs were imprudently or improperly incurred.

Id. (citing Application, at 2). "In light of these conditions," the Consumer Advocate states that it "does not object to MECO's request, as inclusion of costs in excess to the \$3,021,578 that AWE is paying for the MECO-owned and installed Interconnection Facilities is subject to review and approval in the Company's next rate proceeding." Id.

<sup>49</sup>Id. at 18-21.

II.

Discussion

As set forth in the Stipulated Procedural Order, filed May 23, 2011, the issues in this docket are:

1. Whether the Power Purchase Agreement between MECO and Auwahi Wind Energy, LLC, dated January 25, 2011 ("PPA"), should be approved.

a. Whether MECO should be allowed to include the purchased energy charges (and related revenue taxes) that MECO incurs under the PPA in MECO's Energy Cost Adjustment Clause, to the extent that they are not included in base rates.

b. Whether the energy charges to be paid by MECO pursuant to the PPA are reasonable.

c. Whether MECO's purchased power arrangements under the PPA are prudent and in the public interest.

2. Whether MECO may construct the proposed 69 kV interconnection line extension above the surface of the ground, pursuant to Hawaii Revised Statutes ("HRS") §269-27.6(a).<sup>50</sup>

A.

The PPA and ECAC

MECO seeks the commission's approval of the PPA and the recovery of certain associated costs through the ECAC. HRS § 269-27.2(c), governing non-fossil fuel producers, states:

The rate payable by the public utility to the producer for the non-fossil fuel generated electricity supplied to the public utility shall be as agreed between the public utility and the supplier and as approved by the public utilities commission; provided that in the event the public utility and the supplier fail to reach an agreement for a rate, the rate shall be as prescribed by the public utilities commission

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<sup>50</sup>See Stipulated Procedural Order, filed May 23, 2011.

according to the powers and procedures provided in this chapter.

The commission's determination of the just and reasonable rate shall be accomplished by establishing a methodology that removes or significantly reduces any linkage between the price of fossil fuels and the rate for the non-fossil fuel generated electricity to potentially enable utility customers to share in the benefits of fuel cost savings resulting from the use of non-fossil fuel generated electricity. As the commission deems appropriate, the just and reasonable rate for non-fossil fuel generated electricity supplied to the public utility by the producer may include mechanisms for reasonable and appropriate incremental adjustments, such as adjustments linked to consumer price indices for inflation or other acceptable adjustment mechanisms.<sup>51</sup>

HAR § 6-60-6(2) states:

No changes in fuel and purchased energy costs may be included in the fuel adjustment clause unless the contracts or prices for the purchase of such fuel or energy have been previously approved or filed with the commission . . . .<sup>52</sup>

Thus, the commission must approve the PPA or the rates for purchase under the PPA, to allow MECO to include the costs of purchased energy under its PPA in its ECAC. In this regard, the commission notes that the proposed pricing increases annually by 1.5 percent over the previous year, beginning in the second year of the contract. The annual price escalation results in an increase from \$200 per MWh in 2012, to \$269.37 per MWh in year 2032, or 35 percent over the course of the PPA.

The commission, upon its review of the docket record, finds that the proposed energy rates set forth in the PPA appear

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<sup>51</sup>See HRS § 269-27.2(c) (emphasis added).

<sup>52</sup>See HAR § 6-60-6.

to be reasonable, and that such pricing is completely de-linked from MECO's future oil prices, consistent with the requirements of HRS § 269-27.2(c). In addition, to the extent not prohibited by law, any Environmental Credit shall become the property of MECO, provided that such credits shall incur to the benefit of MECO's ratepayers in that the value must be credited "above the line."<sup>53</sup>

Therefore, on balance, the commission finds that the energy purchase rates set forth in the PPA appear reasonable, consistent with, and satisfies: (A) HRS chapter 269 in principle; and (B) HRS § 269-27.2(c), in particular, as a pricing methodology that significantly reduces any linkage between the price of fossil fuels and the rate for the non-fossil fuel generated electricity, which supports the development of non-fossil fuel generation such as renewable energy resources.<sup>54</sup>

With respect to the terms of the PPA, the commission finds that the standard energy delivery and curtailment provisions appear reasonable and in the public interest, and that the PPA's seniority-based curtailment priority provisions to be reasonable and in the public interest. In addition, the commission finds that the other terms of the PPA include reasonable provisions governing scheduling, completion milestones, forecasting, financial compliance, insurance coverage for MECO's benefit, and cross-indemnification.

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<sup>53</sup>See Application, at 62-64.

<sup>54</sup>See also HRS § 269-6(b) (the commission may consider the need for increased renewable energy use in exercising its authority and duties).

That said, the commission has concerns regarding various lingering uncertainties within the PPA. In particular, the commission is concerned with the lack of a final determination regarding the particular turbine technology to be used, as well as the number of turbines and their exact location on the property. The commission is also concerned with the lack of certainty regarding the type and size configuration of the BESS system, as well as the progress of the permit process. In addition, there appears to be no provision that requires the restoration of the entire project site at the end of the project's useful life.

In light of these concerns, the commission determines that MECO shall file a quarterly progress report with the commission until project completion regarding the following issues:

- (1) The type and number of wind turbines to be installed as well as the wind farm's final turbine configuration;
- (2) The type, size, and configuration of the wind farm's BESS;
- (3) Progress and approval date of required permits outlined in the Application;
- (4) Progress of Interconnection costs;
- (5) Documentation of existing or, if necessary, establishment of acceptable Post-Project site restoration requirements;
- (6) Progress of project completion.

Despite the above concerns, the commission finds that the terms and conditions of the PPA, as a whole, appear reasonable and consistent with the State's overall energy policy

of reducing the State's dependence on fossil fuel. Thus, the purchased power arrangements under the PPA, pursuant to which MECO will purchase energy from AWE, appear prudent and in the public interest. MECO is hereby authorized to include the purchased energy charges and related revenue taxes that it incurs under the PPA in MECO's ECAC, subject to compliance with the conditions stated herein.

B.

MECO-Owned Interconnection Facilities Cost Recovery

According to MECO, AWE will "furnish, install, operate and maintain the Interconnection Facilities owned by AWE."<sup>55</sup> Also, the PPA dictates that AWE will construct certain MECO-owned Interconnection Facilities such as "a MECO-owned 69 kV switching station, including three 69 kV outdoor circuit breakers, associated protective relays, station power system, 69 kV three-phase disconnecting switches, potential transformers, current transformers, and 42 kV MCOV lightning arrestors."<sup>56</sup> The PPA requires that AWE pay for MECO-owned and installed Interconnection Facilities "up to a maximum of two times the estimated Total Estimated Interconnection Cost, or \$3,021,578," as well as any costs "in excess of such maximum to the extent the excess costs resulted from changes to the design, engineering or construction of the MECO-owned Interconnection Facilities that

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<sup>55</sup>See Application, at 5. See also PPA, Attachment B, § 1(B).

<sup>56</sup>Id.

were made at the request of AWE or by directive of a Governmental Authority."<sup>57</sup>

The commission, upon its review of the docket record, finds that the provisions governing interconnection are reasonable, and provide MECO's system and equipment with the appropriate protection and safeguards related to the interconnection of AWE's facility. The commission also finds that any MECO-caused cost overruns associated with the MECO-owned Interconnection Facilities above the estimated interconnection costs of \$3,021,578 are not recoverable by MECO at this time, and are instead subject to review in MECO's next rate proceeding or equivalent cost-recovery mechanism (e.g., decoupling) following the completion of the interconnection facilities.

C.

Construction of Overhead Transmission Lines Under  
HRS § 269-27.6(a)

As set forth in HRS § 269-27.6(a):

Notwithstanding any law to the contrary, whenever a public utility applies to the public utilities commission for approval to place, construct, erect, or otherwise build a new 46 kilovolt or greater high-voltage electric transmission system, either above or below the surface of the ground, the public utilities commission shall determine whether the electric transmission system shall be placed, constructed, erected, or built above or below the surface of the ground; provided that in its determination, the public utilities commission shall consider:

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<sup>57</sup>Id.

- (1) Whether a benefit exists that outweighs the costs of placing the electric transmission system underground;
- (2) Whether there is a governmental public policy requiring the electric transmission system to be placed, constructed, erected, or built underground, and the governmental agency establishing the policy commits funds for the additional costs of undergrounding;
- (3) Whether any governmental agency or other parties are willing to pay for the additional costs of undergrounding;
- (4) The recommendation of the division of consumer advocacy of the department of commerce and consumer affairs, which shall be based on an evaluation of the factors set forth under this subsection; and
- (5) Any other relevant factors.<sup>58</sup>

As stated above, the scope of the proposed transmission line project includes: (1) Removal of approximately 600 feet of the existing Kealahou-Wailea 69 kV overhead circuit; (2) Removal of two existing 65-foot poles; (3) Installation of approximately 600 circuit feet of 69 kV overhead lines; and (4) Installation of five new 65-foot poles. MECO states that the proposed project will not create a material visual impact because of the existing overhead lines in the area, and that it is "unaware of any governmental public policy requiring the undergrounding of this line," and no governmental agency or other party has indicated any willingness to pay for the additional

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<sup>58</sup>See HRS § 269-27.6(a). The commission also determines that the public hearing requirement, as set forth under HRS § 269-27.5, has not been triggered because the proposed transmission lines will not pass through any residential area.

costs of undergrounding at its expense.<sup>59</sup> Also, as stated previously, "AWE has agreed to pay the cost of the 69 kV overhead work, subject to AWE's maximum liability of \$3,021,578 for the cost of MECO-owned and installed Interconnection Facilities . . . ."<sup>60</sup>

The commission, consistent with HRS § 269-27.6(a), approves MECO's request to: (1) Remove approximately 600 feet of the existing Kealahou-Wailea 69 kV overhead circuit; (2) Remove two existing 65-foot poles; (3) Install approximately 600 circuit feet of 69 kV overhead lines; and (4) Install five new 65-foot poles. First, the commission finds the absence of any benefit that will outweigh the cost of placing the 69 kV lines underground. Second, the commission is unaware of any governmental policy that requires the undergrounding of the 69 kV lines. Third, it appears that no governmental agency or other parties are willing to pay for the additional costs to underground the 69 kV lines. Fourth, the Consumer Advocate does not object to MECO's request.

### III.

#### Orders

##### THE COMMISSION ORDERS:

1. The purchased energy costs to be paid by MECO pursuant to the Power Purchase Agreement for As-Available Energy

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<sup>59</sup>Id. at 66.

<sup>60</sup>Id.

between MECO and AWE dated January 25, 2011, on balance, are reasonable, subject to the terms and conditions provided herein.

2. The terms and conditions of the purchased power arrangements under the PPA, pursuant to which MECO will purchase energy on an as-available basis from AWE, are prudent and in the public interest, subject to the terms and conditions provided herein.

3. The PPA is approved, subject to the terms and conditions provided herein.

4. MECO is authorized to include the purchased energy costs and related revenue taxes that it incurs under the PPA in the MECO's ECAC, to the extent that such costs are not included in MECO's base rates, for the term of the PPA, subject to the terms and conditions provided herein.

5. MECO shall file a quarterly progress report with the commission until project completion regarding the following issues:

- a) The type and number of wind turbines to be installed as well as the wind farm's final turbine configuration;
- b) The type, size, and configuration of the wind farm's BESS;
- c) Progress and approval date of required permits outlined in the Application;
- d) Progress of Interconnection costs;
- e) Documentation of existing or, if necessary, establishment of acceptable Post-Project site restoration requirements;
- f) Progress of project completion.

6. MECO is not currently authorized to recover any MECO-caused cost overrun related to the MECO-owned Interconnection Facilities at this time; instead, any recovery requests are subject to review in MECO's next rate proceeding or equivalent cost-recovery mechanism (e.g., decoupling) following the completion of the MECO-owned Interconnection Facilities.

7. The commission shall review in MECO's "next general rate case" any cost overruns incurred by MECO regarding the MECO-owned Interconnection Facilities.

8. The commission's approval is conditioned on all laws, regulations, approvals and permitting requirements being satisfied or obtained.

9. MECO's request to install its 69kV line extensions above the surface of the ground is approved, consistent with HRS § 269-27.6(a), is approved.

DONE at Honolulu, Hawaii JUN 15 2011.

PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

By *Hermina Morita*  
Hermina Morita, Chair

By *Carrito P. Caliboso*  
Carrito P. Caliboso, Commissioner

APPROVED AS TO FORM:

*Michael M. Colón*  
Michael M. Colón  
Commission Counsel

By *John E. Cole*  
John E. Cole, Commissioner

2011-0060.cp

CERTIFICATE OF SERVICE

The foregoing order was served on the date of filing by mail, postage prepaid, and properly addressed to the following parties:

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